

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the remarks herewith. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-9, 11-20, and 22 are pending in this application. Claims 10 and 21 have been canceled without prejudice or disclaimer of subject matter. Claims 1, 9, 11, 12, 20, and 22, which are independent, are hereby amended. Support for this amendment is provided throughout the Specification as originally filed.

No new matter has been introduced. It is submitted that these claims, as originally presented, were in full compliance with the requirements of 35 U.S.C. §112. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

II. REJECTIONS UNDER 35 U.S.C. §101, §112, 102(b), AND § 103(a)

Claims 10, 11, 21, and 22 were rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter.

Claims 1, 9-12, and 20-22 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite.

Claims 1-3, 9-14, and 20-22 were rejected under 35 U.S.C. §102(b), as allegedly anticipated by U.S. Patent No. 5,345,508 to Lynn et al. (hereinafter, merely "Lynn").

Claims 4-6 and 15-17 were rejected under 35 U.S.C. §103(a), as allegedly unpatentable over Lynn in view of U.S. Patent No. 7,242,772 to Tehranchi et al. (hereinafter, merely “Tehranchi”).

Claims 7, 8, 18, and 19 were rejected under 35 U.S.C. §103(a), as allegedly unpatentable over Lynn in view of Tehranchi and further in view of U.S. Patent No. 5,966,450 to Hosford et al. (hereinafter, merely “Hosford”).

III. RESPONSE TO REJECTIONS

A. Response to Rejections under 35 U.S.C. §101

Claims 11 and 22 are amended, thereby obviating the rejections.

B. Response to Rejections under 35 U.S.C. §112

Claims 1, 9, 11, 12, 20, and 22 are amended, thereby obviating the rejections.

C. Response to Rejections under 35 U.S.C. §102(b) and 103(a)

Claim 1 recites, *inter alia*:

“An encryption apparatus, comprising:

...encryption means for encrypting the data held by the hold means and one or a plurality of count values of the one or plurality of counters;

...a path that inputs a part or all the encrypted data that are output from the calculation means to the hold means; and

signal generation means for generating the trigger signal and the reset signal supplied to the hold means and the one or plurality of counters according to a second predetermined rule and/or at predetermined timing.” (emphasis added)

As understood by Applicants, Lynn relates to a digital encryption structure that allows the varying of the computational overhead by selectively reusing according to the desired

level of security, a pseudorandom encoding sequence at the transmitter end and by storing and reusing pseudorandom decoding sequences. A public initialization vector is combined with a secret key to produce a deterministic sequence from a pseudorandom number generator.

As understood by Applicants, Tehranchi relates to a data stream encrypted in units of one or more blocks, each block having an assigned encryption key. A plurality of encryption keys is assigned to the complete data stream.

As understood by Applicants, Hosford relates to encrypting frames of data by combining each of the frames with a mask that varies from frame to frame. The mask is obtained by using a frame counter as the seed for a pseudo random number generator. The encrypted frames are transmitted, received, and decrypted by combining them with the mask.

The Office Action (see page 11) cites column 1, lines 59-60 and the PN generator in Figure 2 of Lynn to reject encryption means for encrypting the data held by the hold means and one or a plurality of count values of the one or plurality of counters, as recited in claim 1. The PN generator of Lynn (see page 2, element 18) has only a single input of 17. In contrast, the encryption means of this invention encrypts both data held by the hold means and count values of counters. Therefore, Lynn fails to disclose or suggest the above-identified features of claim 1.

The Office Action (see page 11) cites column 5, lines 12-15 of Lynn to reject a path that inputs a part or all the encrypted data that are output from the calculation means to the hold means, as recited in claim 1. The cited portion of Lynn describes “Information transmitted from transmitter 10 to receiver 20 includes a block of ciphertext 28”. Applicants submit that the transmission of Lynn is between transmitter 10, which is part of an encrypting apparatus, and receiver 20, which is part of a decrypting apparatus. The cited transmission of Lynn is between an encrypting apparatus and a decrypting apparatus. In contrast, the path of this invention inputs

a part or all the encrypted data that are output from the calculation means to the hold means, which is still part of the encrypting apparatus. The path of this invention feeds back the encrypted data back to the encrypting apparatus. Therefore, Lynn fails to disclose or suggest the above-identified features of claim 1.

The Office Action (see page 12) cites IV generator and counter in Figure 2 of Lynn to reject signal generation means for generating the trigger signal and the reset signal supplied to the hold means and the one or plurality of counters according to a second predetermined rule and/or at predetermined timing, as recited in claim 1. Applicants submit that the Office Action creates inconsistency in the rejection. The Office Action (see page 11) relies on element 16, the XOR circuit, in Figure 2 to reject the holding means of this invention. However, in rejecting the signal generation means, the Office Action cites IV generator as the holding means. Clarification of the confusion is respectfully requested. Applicants further submit that Figure 2 of Lynn does not disclose or suggest a signal generation means that generates the same reset signal and the same trigger signal for both the hold means and the counters. Therefore, Lynn fails to disclose or teach the above-identified features of claim 1.

Applicants respectfully submit that Lynn, Tehranchi, and Hosford, taken either alone or in combination, fail to teach or suggest the above-identified features of claim 1.

Therefore, independent claim 1 is patentable.

For reasons similar to, or somewhat similar to, those described above with regard to independent claim 1, claims 9, 11, 12, 20, and 22 are patentable.

IV. DEPENDENT CLAIMS

Each of the other claims in this application is dependent on an independent claim discussed above, and is therefore believed patentable for at least the same reasons presented for the independent claim upon which it depends. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

Similarly, because Applicants maintain that all claims are allowable for at least the reasons presented hereinabove, in the interests of brevity, this response does not comment on each and every comment made by the Examiner in the Office Action. This should not be taken as acquiescence of the substance of those comments, and Applicants reserve the right to address such comments.

CONCLUSION

In the event the Examiner disagrees with any of statements appearing above with respect to the disclosures in the cited references it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicants respectfully request early passage to issue of the present application.

Respectfully submitted,

Frommer Lawrence & Haug LLP
Attorneys for Applicants

By:



Thomas F. Presson
Reg. No. 41,442
(212) 588-0800